

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

(April 6, 2004)

In Reply Refer To:
OEP/DG2E/Gas Branch 2
Freeport LNG Development, L.P.
Docket No. CP03-75-000

TO THE PARTY ADDRESSED:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared this Draft General Conformity Determination to assess the potential air quality impacts associated with the construction and operation of a liquefied natural gas (LNG) import terminal and natural gas pipeline proposed by Freeport LNG Development, L.P. (Freeport LNG), referred to as the Freeport LNG Project, in the above-referenced docket.

This Draft General Conformity Determination was prepared to satisfy the requirements of the Clean Air Act.

Comment Procedures

Any person wishing to comment on this Draft General Conformity Determination may do so. To ensure consideration of your comments in the Final General Conformity Determination, it is important that we receive your comments before the date specified below. **Please carefully follow these instructions to ensure that your comments are received in time and properly recorded:**

- Send an **original and two copies** of your comments to:

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426;
- Reference Docket No. CP03-75-000;
- Label one copy of your comments for the attention of Gas Branch 2; PJ11.2; and;
- **Mail your comments so that they will be received in Washington, DC on or before May 12, 2004.**

Docket No. CP03-75-000

2

Please note that we are continuing to experience delays in mail deliveries from the U.S. Postal Service. **The Commission strongly encourages electronic filing of any comments on this Draft General Conformity Determination.** See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account which can be created online.

After all comments are reviewed, the staff will publish and distribute a Final General Conformity Determination for the Project.

Linda Mitry
Acting Secretary

Docket No. CP03-75-000

3

DRAFT
GENERAL CONFORMITY DETERMINATION
FREEPORT LNG PROJECT
BRAZORIA COUNTY, TEXAS

Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, NE
Washington, DC 20426

Docket No. CP03-75-000

4

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	REGULATORY BACKGROUND – GENERAL CONFORMITY	2
3.0	APPLICABILITY	3
4.0	AIR EMISSIONS INVENTORY	4
5.0	PRELIMINARY GENERAL CONFORMITY DETERMINATION	4

1.0 INTRODUCTION

On March 28, 2003, Freeport LNG Development, L.P. (Freeport LNG) filed an application with the Federal Energy Regulatory Commission (FERC) under Section 3 of the Natural Gas Act (NGA) seeking authorization to site, construct, and operate a liquefied natural gas (LNG) receiving terminal and associated facilities on Quintana Island near the City of Freeport, Brazoria County, Texas. The FERC is the lead federal agency for the review of this Project.

Freeport LNG's proposed facilities would transport up to 1.5 billion cubic feet per day of imported natural gas to customers in the state of Texas, including Dow Chemical and ConocoPhillips. In order to provide LNG import, storage, and pipeline transfer services, Freeport LNG proposes to construct, install, and operate the following facilities for the Freeport LNG Terminal:

- an LNG ship maneuvering area and protected single berth unloading dock;
- a reconfigured storm protection levee and a permanent access road;
- two 26-inch-diameter LNG transfer lines, one 16-inch-diameter vapor return line, and other service pipelines;
- two double-walled LNG storage tanks, each with a nominal volume of 1,006,000 barrels (3.5 billion cubic feet of gas equivalent);
- six 3,240 gallon-per-minute (gpm) in-tank pumps;
- seven 2,315 gpm high-pressure LNG booster pumps;
- three boil-off gas compressors and a boil-off gas condensing system;
- six high-pressure LNG vaporizers and circulation pumps;
- two natural gas superheaters and two fuel gas heaters;
- twelve 98.5 million British thermal units per hour Johnstone boilers;
- a fire response system, a natural gas flare system, a construction dock, an emergency generator, utilities, buildings, access roadways, and service facilities;
- 9.6 miles of 36-inch-diameter natural gas pipeline extending from the Freeport LNG Terminal to the proposed Stratton Ridge Meter Station; and
- pig-launcher, pig-receiver, and metering facilities.

The proposed Freeport LNG Terminal and pipeline (referred to collectively as the Freeport LNG Project or Project) would be located in Brazoria County, Texas, a county included in the Houston/Galveston Area. The Houston/Galveston Area has been designated as a severe nonattainment area ("Severe-17") with respect to the 1-hour National Ambient Air Quality Standard (NAAQS) for ozone. The Houston/Galveston Area is in attainment with NAAQS for other criteria air pollutants.

The General Conformity Rule applies to all nonattainment and maintenance areas. For a project proposed in a nonattainment area such as Brazoria County, a General Conformity Determination is required for each nonattainment pollutant if the total of direct and indirect emissions caused by the project would equal or exceed a specific threshold for the corresponding nonattainment pollutant. For ozone nonattainment areas, nitrogen oxides (NO_x) and volatile organic compounds (VOC) are the designated nonattainment pollutants, since they are ozone precursors.

Based on an evaluation of air contaminant emissions for both the construction and operation of the proposed Project, we have determined that a General Conformity Determination for NO_x and VOC emissions would be required.

2.0 REGULATORY BACKGROUND – GENERAL CONFORMITY

The U.S. Environmental Protection Agency (EPA), in conjunction with the U.S. Department of Transportation (DOT), established the General Conformity Rule on November 30, 1993. The rule implements the Federal Clean Air Act (CAA) conformity provision in Title I, Section 176(c)(1), "Limitation on Certain Federal Assistance," which mandates that the Federal government not engage, support, or provide financial assistance for licensing or permitting, or approving any activity not conforming to an approved CAA implementation plan. In Texas, the applicable plan is the Texas State Implementation Plan (SIP), an EPA-approved plan for the regulation and enforcement of the NAAQS in each air quality region within the state.

The General Conformity Rule is codified at Title 40 Code of Federal Regulations (CFR) Part 51, Subpart W, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans." The Texas Commission on Environmental Quality (TCEQ) has promulgated its own corresponding regulations in 30 TAC 101.30, "Conformity of General Federal Actions to State Implementation Plans." The General Conformity Rule applies to all Federal actions except programs and projects requiring funding or approval from the DOT, the Federal Highway Administration, the Federal Transit Administration, or the Metropolitan Planning Organization. These types of programs and projects must instead comply with the conformity provisions implemented in the Transportation Conformity Rule issued by the DOT on November 24, 1993.

Title I, Section 176(c)(1), of the CAA defines conformity as the upholding of "an implementation plan's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving attainment of such standards." Conforming activities or actions should not, through additional air pollutant emissions:

- Cause or contribute to new violations of any NAAQS in any area;
- Increase the frequency or severity of any existing violation of any NAAQS; or
- Delay timely attainment of any NAAQS or interim emission reductions.

The General Conformity Rule establishes conformity in coordination with and as part of the National Environmental Policy Act process. The rule takes into account air pollution emissions associated with actions that are Federally funded, licensed, permitted, or approved, and ensures emissions do not contribute to air quality degradation, thus preventing the achievement of State and Federal air quality goals. In short, General Conformity refers to the process of evaluating plans, programs, and projects to determine and demonstrate that they meet the requirements of the CAA and the SIP. The purpose of this General Conformity requirement is to ensure that Federal agencies consult with state and local air quality districts so that these regulatory entities

know about the expected impacts of the Federal action and can include expected emissions in their SIP emissions budget.

Pursuant to the General Conformity Rule, a Federal agency must make a General Conformity Determination for all Federal actions in nonattainment or maintenance areas where the total of direct and indirect emissions of a nonattainment pollutant or its precursors exceeds levels established by the regulations.

This Draft General Conformity Determination has been prepared pursuant to the CAA, Section 176(c)(1), and pursuant to 30 TAC 101.30 to assess whether the emissions that would result from the FERC's action in authorizing the Freeport LNG Project would be in conformity with the Texas SIP for the Houston/Galveston Area. The FERC has worked with TCEQ and Freeport LNG to quantify and present the emissions associated with the proposed Project described herein. Should the FERC act favorably on Freeport LNG's application, any final authorization for construction would be withheld by the FERC until any appropriate mitigation measures required to ensure the Project's conformity with the SIP are finalized and agreed to by TCEQ and Freeport LNG.

3.0 APPLICABILITY

The General Conformity Rule applies to all nonattainment and maintenance areas. The proposed Freeport LNG Project would be located in the Houston/Galveston Area, which has been designated as a severe ozone nonattainment area with respect to the 1-hour NAAQS for ozone. This area is in attainment with NAAQS for all other criteria pollutants.

A General Conformity determination in a severe ozone nonattainment area is required in cases where the total of direct and indirect emissions caused by the Federal action would equal or exceed 25 tons per year (tpy) of NO_x or 25 tpy of VOC (40 CFR 51.853(b)(1)). A General Conformity Determination is not required for actions where the total of direct and indirect emissions is below these emissions levels. In addition, even if the total of direct and indirect emissions of NO_x or VOC is below 25 tpy, when the total of direct and indirect emissions of any pollutant from the Federal action represents 10 percent or more of a nonattainment or maintenance area's total emissions of those pollutants, then the action is defined as a regionally significant action and a General Conformity determination would be required.

Consistent with Section 176 (c)(1) of the CAA, a Federal action is generally defined as any activity engaged in or supported in any way by any department, agency, or instrumentality of the Federal government (40 CFR 51.852). Federal actions include providing Federal financial assistance or issuing a Federal license, permit, or approval. Where the Federal action is a permit, license, or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion, or phase of the non-Federal undertaking that requires the Federal license, permit, or approval. Because the FERC would authorize the construction and operation of the proposed Project pursuant to Section 3 of the NGA, it is considered a Federal action, and the resulting emissions of NO_x and VOC must be assessed to determine if they would conform to the Houston/Galveston Area SIP.

4.0 AIR EMISSIONS INVENTORY

The air emissions inventory for the Freeport LNG Project is based on the identification of air contaminants and estimated emission rates for the Project. Air emissions of NO_x and VOC were calculated for construction- and operation-related emission sources.

Construction-related emissions were calculated for nonroad construction sources, for onroad mobile sources, and for sources related to dredging activities. Construction emissions were calculated for each year during the projected construction period (2004, 2005, 2006, and 2007).

Operation-related emissions were calculated for stationary sources included in the air permit application (*i.e.*, boilers, emergency generator, fire water pump, pilot flare, and fugitive sources), for LNG carriers, and for tug boats. Operation-related emissions were calculated for the first year of partial operation (2007) and for the next three years.

Total Project emissions (sum of direct and indirect emissions) were calculated for each year between 2004 and 2010, and the years with the maximum total Project emissions for NO_x and VOC were identified. Maximum Project NO_x emissions of 313.36 tpy were predicted to occur in 2008. Maximum Project VOC emissions of 27.91 tpy were predicted to occur in 2005. The maximum Project emissions include components in categories for which General Conformity must be explicitly demonstrated as well as other components. Further details regarding the methodology and assumptions used in the calculations and the resulting estimates can be found at the following link on FERC's e-Library site:

http://ferris.ferc.gov/idmws/file_list.asp?accession_num=20040324-0187

5.0 PRELIMINARY GENERAL CONFORMITY DETERMINATION

A Federal action is considered to conform when the total of direct and indirect emissions of pollutants resulting from the action is in compliance or consistent with all relevant requirements and milestones in the SIP. The applicability thresholds in severe ozone nonattainment areas are 25 tpy for NO_x and VOC. Under the TCEQ General Air Quality Rules §101.30, "Conformity of General Federal Actions to State Implementation Plan," a Federal action required to have a conformity determination for a specific pollutant will be determined to conform to the SIP if it meets one of several requirements in §101.30(h), "Criteria for Conformity Determination of General Federal Actions."

The total Project emissions of NO_x and VOC are projected to exceed the 25 tpy General Conformity threshold in some years. Therefore, the General Conformity Rule applies and General Conformity must be demonstrated for the compliance year (2007) and for the year with the maximum total emissions for each pollutant subject to General Conformity (*i.e.*, for 2008 for NO_x and for 2005 for VOC).

Based on available information, we believe that the Federal action will meet the requirements of TCEQ Chapter 101, 101.30(h)(1)(E)(i)(I). This section of the TCEQ's General Conformity Rule applies to ozone or nitrogen dioxide, where the EPA has approved a revision to an area's

attainment demonstration after 1990 and the state makes a determination that the total of direct and indirect emissions from the action, or portion thereof, is determined and documented by the TCEQ to result in a level of emissions which, together with all other emissions in the Houston/Galveston Area nonattainment area, would not exceed the SIP emissions budgets.

TCEQ has reviewed the December 2000 Houston/Galveston Area SIP and determined the 2007 compliance year emission inventories for the following source categories that may be effected by the proposed Project:

- Construction Emissions Inventory from Houston-area Ports;
- Ocean-Going Vessels Emissions Inventory for Freeport; and
- Harbor Vessels Emissions Inventory for Freeport.

Calculated Project emissions for these categories were compared to the SIP emissions budgets for 2007 for NO_x and for VOC. The comparisons for NO_x were made for the compliance year (2007) and for the year with the maximum Project emissions of NO_x (2008). For VOC, the comparisons were made for the compliance year (2007) and for the year with the maximum Project emissions of VOC (2005). The results are summarized in Table 1. The data in Table 1 do not include emissions from permitted stationary sources and off-site mobile sources associated with workers and delivery vehicles. These emissions are either presumed to conform, in the case of the permitted stationary sources, by virtue of them having satisfied the TCEQ air permit review process or are already accounted for in SIP emissions budgets.

Pursuant to the General Conformity Rule (40 CFR 51.855), this Draft General Conformity Determination is being provided to demonstrate that the Freeport LNG Project will comply with the requirements of the General Conformity Rule and will be in conformity with the Texas SIP. We believe that Project emissions are within the corresponding SIP emissions budgets established for the Houston/Galveston Area for 2007. We also understand that negotiations between Freeport LNG and the TCEQ are proceeding with the aim of further mitigating or offsetting Project emissions. However, as specified in the TCEQ General Rules, Chapter 101, the state must make a determination and document that the total of direct and indirect emissions from the action, or portion thereof, would result in a level of emissions that, together with all other emissions in the Houston/Galveston Area nonattainment area, would not exceed the SIP emissions budgets. Therefore, it is requested that the TCEQ review this draft General Conformity Determination and provide a formal determination and confirmation that Project emissions can be accommodated in the SIP. Once written confirmation is received, this information will serve as a basis for making a Final General Conformity Determination for the Project.

Table 1 – Comparison of Project Emissions and 2007 SIP Emissions Budgets

Project Emission Category	Pollutant	Year	Project Category Emissions (tpy)	SIP Emissions Category	2007 SIP Emissions Budget (tpy)	Project Percentage of 2007 SIP Emissions Budget
Construction	VOC	2005	19.85	Construction Emissions Inventory for Houston-area Ports in 2007	105.87	18.7
LNG Carriers	VOC	2005	0.0	Ocean-Going Vessels Emissions Inventory for Freeport in 2007	10.4	0.0
Tug Boats	VOC	2005	0.0	Harbor Vessels Emissions Inventory for Freeport in 2007	0.8	0.0
Construction	NO _x	2007	29.03	Construction Emissions Inventory for Houston-area Ports in 2007	617.93	4.7
LNG Carriers	NO _x	2007	131.67	Ocean-Going Vessels Emissions Inventory for Freeport in 2007	376.8	34.9
Tug Boats	NO _x	2007	11.79	Harbor Vessels Emissions Inventory for Freeport in 2007	63.7	18.5
Construction	VOC	2007	3.5	Construction Emissions Inventory for Houston-area Ports in 2007	105.87	3.3
LNG Carriers	VOC	2007	6.23	Ocean-Going Vessels Emissions Inventory for Freeport in 2007	10.4	59.9
Tug Boats	VOC	2007	0.55	Harbor Vessels Emissions Inventory for Freeport in 2007	0.8	68.8
Construction	NO _x	2008	0.0	Construction Emissions Inventory for Houston-area Ports in 2007	617.93	0.0
LNG Carriers	NO _x	2008	263.35	Ocean-Going Vessels Emissions Inventory for Freeport in 2007	376.8	69.9
Tug Boats	NO _x	2008	23.57	Harbor Vessels Emissions Inventory for Freeport in 2007	63.7	37.0

Notes:

1. NO_x emissions for 2008 do not include 24.92 tpy from permitted stationary sources or 1.53 tpy from off-site mobile sources.
2. VOC emissions for 2005 do not include 8.06 tpy from off-site mobile sources.